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Anh Nguyen

04/01/04 01:45 PM

To: NCIC HPV@EPA

CC:

Subject: Environmental Defense comments on Triisopropylborate (CAS# 10043-35-3)

----- Forwarded by Anh Nguyen/DC/USEPA/US on 04/01/2004 01:43 PM -----



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Subject: Environmental Defense comments on Triisopropylborate (CAS# 10043-35-3)

(Submitted via Internet 4/1/04 to oppt.ncic@epa.gov, hpv.chemrtk@epa.gov, boswell.karen@epa.gov, chem.rtk@epa.gov, MTC@mchsi.com, and Edwin.L.Mongan-1@usa.dupont.com)

Environmental Defense appreciates this opportunity to submit comments on the robust summary/test plan for Triisopropylborate (CAS# 10043-35-3).

E. I. DuPont de Nemours & Company, Inc., in response to EPA's High Production Challenge, has submitted Robust Summaries and a Test Plan describing available data and proposing additional studies for triisopropylborate (TIPB). The brief background information provided for TIPB indicates it is manufactured in a single plant and distributed to only four customers, where it is used in commercial applications for the synthesis of pharmaceuticals and lubricant additives. Thus, based on information provided by the sponsor, in the absence of a major spill, there appears to be little potential for exposure of the general public or the environment. Methods of packaging and transport are not described. However, since TIPB has low toxicity and rapidly hydrolyzes on contact with water to yield its component parts, isopropanol and boric acid, which are also relatively nontoxic and miscible with water, there appears to be minimal threat to human or environmental health as a result of manufacture and use of this chemical.

The Test Plan submitted for TIPB is quite brief, but provides a description of the uses of this chemical, a summary of available data addressing the required SIDS elements and a matrix of available data and proposed studies to address those SIDS elements not addressed by available data. The Robust Summaries provide a list of other names and synonyms for this compound as well as most required physical/chemical data. Otherwise they consist primarily of extensive descriptions of studies of the aquatic toxicity of the component parts of TIPB, isopropanol and boric acid. Descriptions of these studies are not inappropriate, as TIPB rapidly hydrolyses on contact with water to yield its component parts; however, they are somewhat overly detailed.

Studies of mammalian toxicity are limited to studies of acute toxicity that demonstrate the low acute toxicity of TIPB to mammals. Additional studies are proposed to address the repeated dose toxicity and developmental/reproductive toxicity of TIPB. Whereas we appreciate DuPont's willingness to conduct additional studies of TIPB we would point out that, given the low acute toxicity of this chemical and the fact that it hydrolyzes rapidly on contact with water, additional animal studies may

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be unwarranted. That is, based on data described in this submission and elsewhere, TIPB would be expected to rapidly hydrolyze in the aqueous environment of the gastrointestinal tracts of treated animals. Therefore, the toxicity of TIPB would be expected to be the same as the combined toxicities of the resulting hydrolysis products, isopropanol and boric acid. The toxicities of these chemicals are well-established and have been shown to be low. It is unlikely that their combined toxicity is going to be greater than their individual toxicities. Thus, if it is appropriate that data for the component parts of TIPB are used to address the required SIDS elements for ecotoxicity, and we agree that it is, then it should be permissible to use data developed for these same chemicals to address SIDS elements for animal toxicity. In summary, in order to minimize unnecessary animal testing, we would recommend that EPA give careful consideration to allowing DuPont to forgo additional animal studies with TIPB.

Thank you for this opportunity to comment.

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